



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-7

Issued: 29 Jan 2022 / 0900L (1400Z)

Valid: 30 Jan 2022 / 1429 – 1809L (1929 – 2309Z)



Forecast Discussion: The low pressure system that developed off the east coast of Florida yesterday has already moved well up the eastern US coast and pulled a strong cold front through the state this morning. Brisk northwesterly winds will continue, bringing clear, dry, and cold conditions to the Spaceport. The Arctic high in the system's wake will settle into the Gulf of Mexico by late today, before sliding into the central Gulf on Sunday. Winds will quickly diminish late this evening and into the launch window Sunday afternoon. Only a few low topped cumulus clouds are expected to be present, though these may be cold enough for a Cumulus Cloud threat during the window.

Weather continues to be favorable into Monday as the high center slides east across the Florida peninsula. Dry conditions remain into the launch window Monday afternoon, with a few more cumulus clouds as light low level flow turns east off of the Atlantic. There will only be a small concern for Cumulus Clouds during the backup launch window.

Launch Day	Probability of Violating Weather Constraints						
	10%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
		Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 50°F / 55%	Stratocumulus	Few	3,000	4,500	Booster Recovery Weather:	Moderate	
Liftoff Winds (200'): 290° 10 - 15 mph					Solar Activity:	Low	
24-Hour Delay	Probability of Violating Weather Constraints						
	10%	Primary Concerns: Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility: None / 7 mi.	Clouds				Upper-Level Wind Shear:	Low
		Type	Coverage	Base (ft)	Tops (ft)		
Temp/Humidity: 57°F / 65%	Cumulus	Scattered	3,000	5,000	Booster Recovery Weather:	Low	
Liftoff Winds (200'): 070° 5 - 10 mph	Cirrus	Scattered	25,000	30,000	Solar Activity:	Low	
Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.							
Next Forecast Will Be Issued		As Needed					